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Issued December 15, 1906.

U. S. DEPARTMENT OF AGRICULTURE,

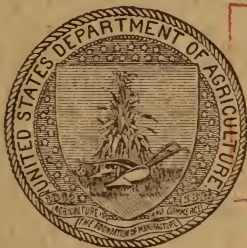
BUREAU OF ANIMAL INDUSTRY—ORDER No. 139.

A. D. MELVIN, CHIEF OF BUREAU.

REGULATIONS

GOVERNING THE

INSPECTION, HUMANE HANDLING, AND SAFE TRANSPORT OF
ANIMALS CARRIED BY OCEAN STEAMERS FROM THE
UNITED STATES TO FOREIGN COUNTRIES.



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U. S. DEPARTMENT OF AGRICULTURE,
OFFICE OF THE SECRETARY,
Washington, D. C., November 30, 1906.

Under authority of the act of Congress approved August 30, 1890, entitled "An act providing for the inspection of meats for exportation, prohibiting the importation of adulterated articles of food or drink, and authorizing the President to make proclamation in certain cases, and for other purposes;" of the act of Congress approved March 3, 1891, entitled "An act to provide for the safe transport and humane treatment of export cattle from the United States to foreign countries, and for other purposes," and of the acts of Congress approved March 22, 1898, and June 30, 1906, making appropriations for the Department of Agriculture, the following regulations are hereby prescribed for the inspection, humane treatment, and care of live stock and for fitting vessels engaged in the transportation of animals from the United States to foreign countries.

These regulations, which for the purpose of identification are designated as B. A. I. Order No. 139, supersede all previous regulations on the same subject, and shall become and be effective on and after December 1, 1906.

JAMES WILSON, *Secretary.*

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REGULATIONS GOVERNING THE INSPECTION, HUMANE HANDLING, AND SAFE TRANSPORT OF ANIMALS CARRIED BY OCEAN STEAMERS FROM THE UNITED STATES TO FOREIGN COUNTRIES.

GENERAL PROVISIONS.

Regulation 1. No cattle, sheep, swine, or goats shall be exported from the United States to any foreign country unless and until the same have been inspected and found free from disease or exposure thereto by an inspector of the Bureau of Animal Industry of this Department; and unless the Secretary of Agriculture shall have waived the requirement of a certificate of inspection for the particular country to which such animals are to be exported no clearance shall be issued to any vessel carrying such animals, unless and until a certificate of inspection showing freedom from disease or exposure thereto shall have been issued by the Department of Agriculture. The requirement of a certificate for shipments of such animals to Cuba, the West Indies, Mexico, Central America, and the countries of South America, excepting Argentina and Uruguay, is hereby waived.

PLACES OF INSPECTION.

The inspection provided for in this regulation will be made at any of the following-named stock yards: Chicago, Ill.; Kansas City, Mo.; Omaha, Nebr.; South St. Joseph, Mo.; National Stock Yards, Ill.; Indianapolis, Ind.; Buffalo, N. Y., and Pittsburg, Pa., and at the following ports of export: Portland, Me.; Boston, Mass.; New York, N. Y.; Philadelphia, Pa.; Baltimore, Md.; Norfolk and Newport News, Va.; Port Royal, S. C.; New Orleans, La., and Galveston, Tex. All animals will be inspected at ports of export, regardless of the fact that they may or may not have been inspected at the above-named stock yards.

HORSES.

Regulation 2. Horses shall be entitled to the inspection provided for in these regulations, and certificates shall be issued whenever required by the country to which the horses are to be exported, but horses may be shipped without inspection and certification, at shippers' risk, to countries which do not demand such inspection and certification as a prerequisite to admission.

DEFINITION OF TERMS.

Regulation 3. Whenever in these regulations the following words, names, or terms are used, they shall be construed as follows:

Inspector of Port, Inspector, Assistant, Employee.—These terms shall mean, respectively, the inspector in charge of the Bureau of Animal Industry station at the port from which the animals are to be exported, and inspectors, assistants, and employees of the Bureau of Animal Industry.

Lumber.—This word, unless otherwise stated, shall mean hard pine, spruce, oak, or other hardwood.

Animals.—This word refers to cattle, sheep, swine, and goats, also horses, unless it is inapplicable to them under Regulation 2.

Horses.—This word shall include mules and asses.

INSPECTION AND SHIPMENT.

Regulation 4. Only animals found to be healthy and free from disease and shown not to have been exposed to the contagion of any disease shall be allowed shipment, and all animals inspected and past shall be loaded into clean and disinfected cars.

All animals shall be inspected or reinspected at the port of export. Railroad companies will be required to furnish clean and disinfected cars for the transportation of animals for export, and the proprietors of the various stock yards and stables located at the ports of export shall keep separate, clean, and disinfected stock yards and pens or stables for the use of export animals.

IDENTIFICATION OF ANIMALS AND NOTIFICATION OF SHIPMENT.

Regulation 5. Shippers shall notify the inspector in charge of the yards of intended shipments of animals and the number and designation of cars in which they are to be shipped, and shall inform said inspector of the locality from which said animals have been brought, and the name of the feeder of said animals, and shall furnish such other information as may be practicable for the proper identification of the place from which said animals have come.

Regulation 6. The inspector after passing said animals shall notify the inspector in charge of the port of export, and inspectors located at intermediate cities where the animals may be unloaded for feeding and watering, of the inspection and shipment of such animals, the number and kind of animals shipped, and the numbers and designations of the cars containing them.

TRANSPORTATION FROM YARDS TO STEAMERS.

Regulation 7. Export animals shall not be unnecessarily past over any highway or removed to cars or boats which are used for conveying other animals. Boats transporting said animals to the ocean steamer must first be cleansed and disinfected with lime wash under the supervision of the inspector of the port, and the ocean steamer shall, before receiving said animals, be thoroly cleansed or disinfected in accordance with the directions of said inspector. When passage upon or across the public highway is unavoidable in the transportation of animals from the cars to the boat it shall be under such careful supervision and restrictions as the inspector may direct.

ANIMALS NOT ALLOWED SHIPMENT.

Regulation 8. Any animals that are offered for shipment to a foreign country which have not been inspected and transported in accordance with these regulations, or which, having been inspected, are adjudged to be infected or to have been exposed to infection so as to be dangerous to other animals or to be otherwise unfit for shipment, shall not be allowed upon any vessel for exportation.

SUPERVISION TO STEAMERS—CLEARANCE PAPERS.

Regulation 9. The supervision of the movement of animals from cars, yards, and stables to the ocean steamer at the port of export will be in charge of the inspector of the port.

The inspector at the port of export shall notify the collector of the port, or his deputy, of the various shipments of animals that are entitled to clearance papers.

NOTIFICATION TO INSPECTORS OF INTENDED SHIPMENTS ON STEAMERS.

Regulation 10. The exporters of animals or the owner, agent, or master of any vessel desiring to transport animals from any port of the United States to a foreign country shall notify the inspector in charge of the port from which said vessel is to clear of such intended shipment at least two days in advance thereof, and if the regulations prescribed have been complied with a clearance shall be authorized by such inspector.

SPACE ON VESSELS.

Regulation 11. Export animals must not be carried on any part of the vessel where they will interfere with the proper management of the vessel, or with the efficient working of the necessary lifeboats, or with the requisite ventilation of the vessel, and may be carried only as hereinafter specified.

CATTLE.

Regulation 12. Cattle must have 6 feet vertical space on all decks, free of all obstructions; cattle may, however, be placed on raised floors over pipes and other similar obstructions where the vertical space is 5 feet 6 inches. Cattle carried on the upper or other exposed decks must be allowed a space of 2 feet 6 inches in width by 8 feet in depth per head. Cattle loaded under decks must be allowed a space of 2 feet 8 inches in width by 8 feet in depth, except in the case of regular cattle ships with satisfactory ventilation, which may fit with an allowance of 2 feet 6 inches in width.

No more than four head of cattle will be allowed in each pen, except at the ends of a row, where five may be allowed together. Cattle in single stalls shall be allowed 3 feet in width. Cattle standing between stanchions, sounding tubes, ventilators, and other obstructions, tho in continuous pens, must be allowed 3 feet in width. Vessels will be allowed to carry three deck loads of cattle, but where it is desired to carry cattle on the lower or steerage deck, said deck must

in all cases be fitted at 2 feet 8 inches and no animals allowed upon hatches. Special permission for carrying cattle on the steerage deck must be obtained from the inspector, and will be granted in cases where said deck is provided with sufficient ventilation as hereinafter prescribed.

SHEEP AND GOATS.

Regulation 13. The space for each sheep or goat shall be 4 feet long by 14 inches wide, and for lambs or goats under 100 pounds in weight 4 feet by 12 to 13 inches.

Sheep pens shall not exceed 20 feet by 8 feet, where two tiers are carried, and each tier shall have a clear vertical space of not less than 3 feet. During the summer season sheep shall not be loaded in tiers under decks, but during the winter season two tiers may be placed in each wing and only one tier amidships. One single deck of sheep may be carried upon the shelter decks for cattle when said decks are permanently built and are composed of tongued-and-grooved boards, provided such sheep fittings do not conflict with regulation 12. Sheep pens on shelter deck shall not exceed 12 feet in width and must be supplied with athwartship partitions every 14 feet. Such fittings shall be secured to the shelter deck in the manner provided by regulation 41.

SWINE.

Regulation 14. The space for swine not exceeding 150 pounds in weight shall be the same as that specified for full-grown sheep and goats, and for those under 100 pounds in weight the same as for lambs and for goats of less than 100 pounds in weight. Additional space shall be required by the inspector for unusually large hogs.

HORSES.

Regulation 15. All horses must have 6 feet 3 inches clear vertical space from beams of deck overhead to deck underfoot, and, so far as possible, shall be placed between the overhead athwartship beams. Each horse must be allowed a space of 2 feet 6 inches in width by 8 feet in depth, and additional space shall be required by the inspector for very large horses.

Separate stalls must be erected for all horses. When horses are placed directly under athwartship beams, the beams must be guarded by 4-inch strips of wood. A space of 8 by 10 feet square must be reserved on each steamer carrying 22 or more horses for use in caring for horses becoming sick in transit. When placed in the same compartment with cattle, horses must be separated by fore-and-aft alleyways and temporary athwartship bulkheads, the length of which shall not be less than the depth of the stalls.

UPPER-DECK FITTINGS.

Regulation 16. No animals shall be allowed on the poop deck or within 20 feet of the breakwater on the spar deck, between the 1st of October and the 1st of April, except on ships provided with houses constructed of iron in each wing and of sufficient width and height to protect the fittings, when the fittings may be constructed to abut such

houses. Horses shall not be allowed upon the bridge deck, except when this deck is watertight and completely covered in and fitted for horses. Horses shall not be allowed upon the spar deck when temporary fittings are used. No cattle or horses shall be carried upon the upper decks where the outside rails are not of sufficient strength to hold fittings securely and measure less than 3 feet in height from the deck. When animals are carried upon the upper decks, strong breakwaters shall be erected at each end and on both sides. Permanent fitting may be constructed either of iron or wood, as hereinafter specified.

ALLEYWAYS.

Regulation 17. All steamers engaged in carrying animals for export will be required to provide alleyways as provided by this regulation. Alleyways in front of and between pens used for feeding and watering cattle must have a width of 3 feet, except at end of alleyways in bow and stern of ship, and where obstructions less than 3 feet in length occur the width may be reduced to a minimum of 18 inches. Alleyways in front of and between pens used for feeding and watering horses must have a minimum width of 3 feet. Two or more athwartship alleyways at least 18 inches wide must be left on each side of upper decks, so that the scuppers can be readily reached and kept clear of obstructions. For sheep and goats athwartship alleyways not less than 18 inches wide in the clear shall be left between pens and fore-and-aft alleyways 3 feet wide in front of each pen, except that at obstructions and at ends of alleyways, as provided for cattle, there may be a minimum width of 18 inches. Sufficient space must be left at the sides of hatches to permit the feed in the hold to be readily removed and handled.

WOODEN STANCHIONS AND RUMP BOARDS.

Regulation 18. Stanchions at least 4 inches higher than the required vertical space for cattle and horses must be of 4 by 6 inch clear hard pine or good sound spruce, set 6 feet from centers against the ship's rail, and inside stanchions in their proper place must be directly in line with outboard stanchions and set up so that the 6-inch way of the stanchions shall set fore and aft. A proper tenon, not less than 4 inches in length, shall be cut on the head of the same to receive the athwartship beam. A piece 2 by 3 inches, or 2-inch plank, shall be fastened to the outside of the stanchion and run up to underneath the rail to chock down the stanchion and prevent lifting when the beam is sprung to the crown of the deck. Open-rail ships shall be blocked out on backs of stanchions fair with the outside of rails to receive the outside planking. Where upper-deck fittings are not permanent, the heels of outside stanchions shall be secured by a bracing of 2 by 3 inch lumber from the back of each stanchion to sheer streak of waterway, the heels of inside stanchions being properly braced from and to each other. Bulwark stanchions must also be extra braced by raking shores running diagonally from the top of the stanchions to the deck.

Rump boards must be provided on all decks, and when covering bits, rigging, or other obstructions located at a distance from ship's side, must have fittings built 8 feet from said obstruction, with a solid

partition built behind the cattle, not less than 5 feet high from deck, to prevent injury to the animals; and when necessary to extend fittings opposite bitts, etc., two or more cattle must be brought forward. Rump boards in such cases shall be $1\frac{1}{2}$ inches thick. For horses, wooden stanchions as above described must be placed at proper distances from each horse.

IRON STANCHIONS.

Regulation 19. Iron stanchions may be used in place of wooden stanchions and shall not be less than 2 inches in diameter, set in iron sockets above and below, and fastened with $\frac{5}{8}$ -inch bolts. For horses the same number of iron stanchions are required as when wooden stanchions are used.

HOOK BOLTS OR CLAMPS.

Regulation 20. Hook bolts or clamps must be made of $\frac{5}{8}$ -inch wrought iron, with hook on outboard end and thread and nut on inboard end to pass over and under rail and thru outboard stanchion and set up on the inside of same with a nut. These bolts may be double or single. If double, no thread or nut is necessary, but the stanchion will lie shipped thru it, thus double-hooking the rails. This will be found very useful where funnels or other deck fittings come in the way of beams passing from side to side of ship.

BEAMS.

Regulation 21. Beams must be of good sound spruce or hard pine lumber, 4 by 6 inches, to run clear across the ship's beam where practicable. Should any house or deck fittings be in the way, the beams should butt up closely to the same. These beams shall have a 2 by 4 inch mortise to receive the tenon of each and every stanchion and to take the same crown as deck of ship by springing down to shoulder of outside stanchion and to be properly pinned or nailed to tenon and wedged tightly afterwards. The mortises shall be cut not less than 6 inches from outside ends of beams.

BRACES.

Regulation 22. Diagonal braces shall be fastened on each stanchion on both sides of same, running up to top side of beam and properly secured by well nailing to both stanchions and beam.

HEADBOARDS.

Regulation 23. Headboards shall be not less than 2 by 10 or $2\frac{1}{2}$ by 9 inches, of good clear spruce or hard pine lumber, and secured at every stanchion by $\frac{5}{8}$ -inch screw bolts passing thru same and set up with nuts. When 3 by 9 or 3 by 10 inch headboards are used, stanchions may be set at distances not exceeding 8 feet. Where headboards butt on the stanchions, a piece of iron one-quarter of an inch thick and 3 inches square shall be placed over the boards like a butt strap. These headboards shall have $1\frac{1}{4}$ -inch holes bored thru them

at proper distances for tying the animals; provided, however, that on all open decks stanchions must not be placed more than 6 feet from center to center.

HEAD PIPES.

Regulation 24. In place of wooden headboards, two wrought-iron pipes not less than 2 inches in diameter may be used, placed 8 inches apart. Such head pipes must be made continuous by having a wrought-iron threaded collar securely fastened on the end of each length of pipe into which the next length may be inserted or secured. Both head pipes must be held in place by means of having wrought-iron straps bolted to each stanchion by four $\frac{5}{8}$ -inch bolts. The lower head pipe shall be fitted with movable clamps, holding a ring of suitable size to which cattle may be tied; said clamps shall be set at the proper distance apart, in accordance with these regulations, and fastened to the pipe with screws.

FOOTBOARDS.

Regulation 25. Footboards shall be of wood and of the same dimensions as headboards, and shall be properly nailed or bolted to stanchions.

DIVISION BOARDS.

Regulation 26. Division boards for cattle shall be 2 by 8 inch sound spruce or hard pine, and so arranged as to divide the animals into lots of four, except at the ends of rows, thus making compartments for this number all over the vessel. These division boards shall be fitted perpendicularly.

DIVISION PIPES.

Regulation 27. In place of wooden division boards, three wrought-iron pipes not less than 2 inches in diameter may be used, placed 6 inches apart athwartship, set in iron sockets above and below, and fastened with $\frac{5}{8}$ -inch bolts.

DIVISION BOARDS FOR HORSES.

Regulation 28. Division boards for horses shall not be less than 2 by 9 inches by 8 feet, and shall be of sound lumber, planed, and placed horizontally between the horses.

FLOORING.

Regulation 29. Ships with iron decks shall be sheathed with 1-inch or 2-inch spruce or hard pine, but if 1-inch lumber is used the foot locks shall be 3 by 4 inches and laid so that they will properly secure the 1-inch boards, thus preventing them from slipping and at the same time acting as foot locks by showing a surface of 2 by 4 inches. It is optional with the owners whether they permit sheathing to be used on their ships with wooden decks, or whether they allow foot locks to be secured to the deck, but it is absolutely necessary to sheath iron decks before putting down foot locks in order to fasten same.

Cement, diagonally scored, $\frac{3}{8}$ -inch deep, may be used on iron decks instead of wood sheathing, if the foot locks be molded in the same and bolted to the deck. If the flooring is raised on any of the decks, it shall not be less than 2 inches thick, with scantlings 2 by 3 inches laid athwartships on the deck, not over 18 inches apart, with 2-inch plank for flooring nailed to them.

FOOT LOCKS.

Regulation 30. Foot locks shall be of good sound spruce, hard pine, oak, or other hard wood, size 2 by 4 inches, laid flat side down and fore-and-aft, placed 12 inches, 14 inches, 2 feet 2 inches, and 14 inches apart, the first one distant 12 inches from the inside of foot-board. Where temporary fore-and-aft locks are used, they shall be filled in athwartships opposite each stanchion, properly secured to sheathing or deck, and secured by a batten of spruce or hard pine 2 by 3 inches thick to go over all from stanchion to stanchion. Pieces of 2 by 3 inches must be nailed on stanchion over batten to prevent floor raising. Where permanent foot locks, securely bolted to decks, are used, the athwartship braces between foot locks from stanchion to stanchion and batten may be omitted when the stanchion is securely fitted in iron socket bolted to the deck. When troughs are used, fore-and-aft foot locks will be placed 17, 16, 22, and 16 inches apart. A space of 2 inches may be left between the ends of athwartship foot locks and fore-and-aft foot locks when the former are securely bolted to the deck. When fore-and-aft foot locks are permanent, a 2-inch space shall be left between ends at end of each section. Vessels now fitted with 3 by 4 inch foot locks will not be required to use 2 by 4 inch foot locks except when the former are replaced.

OUTSIDE PLANKING.

Regulation 31. All outside planking on open and closed rail ships must be properly laid fore and aft of ship and nailed to the backs of stanchions as close as possible for the cold season, and for the warmer months the top course planking shall be left off fore and aft of ship in order to allow a free circulation of air. Nothing less than $1\frac{1}{2}$ -inch spruce or hard pine is to be used for this purpose.

SHELTER-DECK PLANKING.

Regulation 32. The planks to form the shelter deck, which must be erected on all exposed decks, shall be laid with $1\frac{1}{2}$ -inch sound spruce or hard pine lumber, sufficient to cover cattle. These planks shall be laid as closely as possible and shall be well nailed to the beams, thus making a good deck from which to work the ship's gear.

CATTLE FITTINGS OVER SPAR DECK.

Regulation 33. No cattle fittings shall be erected over permanent spar-deck fittings forward and aft of the midship section until permission has been obtained from the Chief of the Bureau of Animal Industry.

UNDER-DECK FITTINGS.

ALLEYWAYS.

Regulation 34. Alleyways on under decks shall be of the same dimensions as the alleyways of the upper decks.

STANCHIONS.

Regulation 35. Stanchions on under decks shall be of clear hard pine or good sound spruce, 4 by 6 inches, set 6 feet from centers, so that the 6-inch way of same shall stand fore and aft and jammed in tight between the two decks, securely braced with 2 by 3 raking shores from stanchion to stanchion and sides of ship. If upper and lower decks are wood, then the stanchions set up between decks may be secured by well cleating to each deck at heads and heels of same.

HEADBOARDS, ETC.

Regulation 36. Headboards, footboards, division boards, flooring and foot locks of the under decks shall be of the same dimensions and materials as those of upper decks and shall be fastened and arranged in the same manner.

TROUGHS.

Regulation 37. Suitable troughs may be built on the footboards about 12 inches wide, when required for cattle, on either deck, by fastening footboards on outside of stanchions and fitting up on the inside. When it is desired to feed small grain or ground feed the trough shall be raised above the decks to prevent the feed from becoming wet. Removable troughs must be used for feeding horses. Suitable troughs for grain and water must be provided on three sides of each sheep, goat, or hog pen.

PENS AT ENDS OF HATCHES.

Regulation 38. When pens run up to the ends of hatches two athwartship planks must be so placed as to prevent cattle from getting out of such pens.

PROTECTION FROM HEAT OF BOILERS.

Regulation 39. No animals shall be loaded along the alleyways by engine and boiler rooms, unless the sides of said engine and boiler rooms are covered by a tight sheathing, making a 3-inch air space.

CASING FOR STEERING GEAR.

Regulation 40. Suitable casing must be placed over the ship's steering gear when found necessary.

SHEEP AND GOAT PENS.

SHELTER DECK.

Regulation 41. Only a single tier of sheep and goats may be carried on the shelter deck. Stanchions shall be not less than 4 by 4 inch spruce or hard pine set 5 feet on centers, with $1\frac{1}{2}$ -inch shoulder to be gained on stanchions to receive rafters. Rafters shall be 3 by 6 inch spruce or hard pine set on edge and bolted to stanchions with $\frac{5}{8}$ -inch bolts. Planking shall be not less than $1\frac{1}{4}$ -inch tongued-and-grooved spruce or hard pine. Troughs must be constructed of three pieces of 1 by 6 inch lumber nailed together securely. Hayracks shall be made of 1 by 2 inch lumber and built in pens fore and aft and on athwartship partitions. Battens shall be nailed on the deck of the same dimensions as under deck, to act as foot locks. Battens on front and ends of pens shall be of 1 by 6 inch spruce or hard pine lumber and sufficient in number to properly secure the sheep or goats in the pens.

UPPER DECK.

Regulation 42. Sheep and goat pens on upper deck shall be built with the same size and quality of lumber as cattle fittings upon upper deck. Flooring between tiers shall be of the same dimensions as under-deck fittings. Troughs and hayracks shall be the same as provided in regulation 41.

UNDER DECK.

Regulation 43. When the pens for sheep and goats on under deck are built for two tiers, joists not less than 3 by 4 inch spruce or hard pine must be used, supported in centers by 2 by 3 inch pieces run from deck to underside of joists securely nailed to same. The flooring shall be not less than $\frac{7}{8}$ -inch tongued-and-grooved spruce or hard pine, and 1 by 2 inch battens shall be laid fore and aft on flooring, 18 inches apart, to act as foot locks. Stanchions may be made of 4 by 4 inch spruce or hard pine lumber. Troughs and hayracks shall be of the same dimensions as provided in regulation 41.

VENTILATION.

Regulation 44. Each under-deck compartment not exceeding 50 feet in length must have at least four bell-mouthed ventilators of not less than 18 inches in diameter and with tops exceeding 7 feet in height above shelter deck, two situated at each end of the compartment. Compartments over 50 feet long must have additional ventilators of the same dimensions or efficient fans.

SPAR DECK.

Regulation 45. When the fittings on the spar deck are permanent and hatches overhead are provided, the same regulations for ventilation shall apply as provided for under decks.

THIRD DECK.

Regulation 46. When it is desired to carry animals upon the third deck, written permission must be obtained from the inspector of the port. The vessel must be fitted as hereinbefore specified, lighted with electric lights, and properly ventilated. One set of ventilators should be trimmed to the wind and another set in the opposite direction. The ventilators must be tested and kept in easy working order.

HATCHES.

Regulation 47. No cattle, swine, sheep, or goats shall be loaded upon hatches on decks above animals nor upon third deck hatches when animals are carried upon such deck, nor shall any merchandise, freight, or feed for animals be loaded upon said hatches, but said hatches shall at all times be kept clear. In loading animals upon upper decks, four of the hatches shall be kept free of animals, one forward and one aft, and the intervening hatches must be so fitted as to afford an equalization of ventilation. Horses shall not be allowed upon any hatches under any circumstances.

No cattle shall be loaded upon any hatch where the coamings exceed 18 inches in height in center of hatch. There shall be not less than 5 feet 6 inches vertical space between the beams overhead and the flooring placed on hatches underfoot.

LIGHTING.

Regulation 48. All vessels designated as cattle ships must provide at all times electric lights for the proper attending of all animals.

FEED AND WATER.

Regulation 49. All vessels not provided with pipes for watering animals shall carry casks or hogsheads of not less than 400 gallons total capacity for each 100 head of cattle and horses, and an additional amount in equal proportion shall also be carried for sheep, and these shall be filled with fresh water before sailing and refilled as emptied. All water tanks for use of animals must be filled with good fresh water before sailing.

Each vessel shall carry water condensers which are in good working order and of sufficient capacity to provide 8 gallons of fresh cold water each twenty-four hours for each head of cattle, in addition to the amount required by other animals on board and for other purposes.

Regulation 50. Not more than two days' feed for the animals shall be allowed to be carried on the shelter deck, and no feed shall be carried on the shelter deck when same interferes with the proper care of sheep; neither shall any feed be stored on top or inside of sheep pens. When feed as above provided is placed on the shelter deck, it must be properly covered and shall be the first feed used. All other feed shall be under hatches, and, so far as possible, shall be placed in the holds contiguous to the animals on board.

ATTENDANTS.

EMPLOYMENT AND CHARACTER.

Regulation 51. The employment of all attendants shall be subject to the approval of the inspector of the port, and men so employed shall be reliable and signed as a part of the ship's crew and under the control of the captain of the vessel. They shall be furnished with well-lighted and well-ventilated quarters and with bedding and table utensils. Experienced foremen shall be in charge of the animals, and not less than one-half of the attendants must be experienced men who have made previous trips with stock.

The shippers of export animals, or their agents, shall make affidavit concerning the character of the attendants. The attendants shall be assembled a sufficient time before the sailing of the steamer for an employee of this Department to examine them. The examination shall be made before the signing of the ship's articles by the attendants, and any man who fails to conform to the following conditions shall be rejected: (1) The men employed must be able to speak English sufficiently to make themselves understood, or to understand orders given them; (2) they must know for what purpose they are employed and the duties that will be required of them; (3) they must be able-bodied and physically competent to perform the duties required; (4) each man entitled to return passage shall be supplied with return transportation before acceptance, unless he informs the inspector that he does not wish to return. The Department has no control over the return of cattlemen. Inspectors in charge of the ports are directed to carefully enforce the above regulations.

When attendants are found to be incompetent, intemperate, or otherwise unfit to properly care for the animals, the captain of the vessel is requested to report the fact to the inspector of the port.

CATTLE ATTENDANTS.

Regulation 52. There shall be one attendant for each 35 head of cattle, not including foremen, upon steamers having water pipes extending the entire length of both sides of compartments; and upon steamers not so fitted there shall be one attendant for each 25 head of cattle shipped. Provided, however, that when all the attendants are experienced and capable men, there shall be one attendant for each 50 head of cattle upon steamers having water pipes extending the entire length of both sides of compartments, and not less than 3 feet in width of alleyways, if a competent watchman for night duty for each shipper is furnished in addition; and upon steamers not so fitted there shall be one experienced attendant to each 35 head of cattle shipped, together with watchmen as provided above.

SHEEP AND GOAT ATTENDANTS.

There shall be one man in charge of each 150 head of sheep and goats during the winter season (October 1 to April 1), and one to each 200 sheep and goats during the summer season.

HORSE ATTENDANTS.

For horses there shall be one attendant to each 22 head.

ADDITIONAL HELP.

There shall also be additional help furnished by the captain of the vessel when water has to be pumped by hand.

REST, LOADING, INSPECTION, CERTIFICATES, ETC.

REST BEFORE EMBARKATION.

Regulation 53. No vessel shall be permitted to take on board any cattle, sheep, swine, or goats unless the same have been allowed at least five hours' actual rest in the yards at the port of embarkation before the vessel sails, nor until the loading of the other cargo has been completed.

The phrase "actual rest" as applied to live stock in transit for export must not be interpreted to include any of the time occupied in unloading animals from the cars, or in their inspection, handling and roping, or in loading them on the cars again for transportation to steamer.

All animals must remain a sufficient length of time in stables or yards during daylight at the port of embarkation before the vessel sails for the purpose of inspection.

No vessel shall be permitted to take on board any horses which have been shipped over 500 miles unless the same have been allowed at least eighteen hours' actual rest in the stable or stables designated by the inspector for export horses at the port of embarkation before the vessel sails. Horses shipped less than 500 miles shall remain in such stables or yards as the inspector may designate not less than six hours for the purpose of inspection and rest. Horses shall not be placed upon steamers until the loading of the other cargo has been completed.

LOADING, ETC.

Regulation 54. The inspector, or one of his assistants, shall supervise the loading of the animals and see that they are properly stowed, and, as far as practicable, tied; that a sufficient amount of good, wholesome feed is properly stowed; and that all the requirements of these regulations have been complied with. In case the regulations have not been complied with, he shall immediately notify the Chief of the Bureau of Animal Industry. In hot weather the tying of the cattle may, in the discretion of the inspector, be in part omitted until after the steamer has cleared and is in motion.

CERTIFICATES OF INSPECTION.

Regulation 55. The inspector at the port of shipment shall issue certificates of inspection for cattle, sheep, swine, and goats, which are to be exported to any foreign country, unless the Secretary of Agriculture shall have waived the requirement for such certificate of in-

spection for export to the particular country to which such animals are to be shipped. Each certificate shall cite the name of the shipper, the name of the consignee, and the destination. The certificates shall be issued in serial numbers; only one certificate shall be issued for each consignment, unless otherwise directed by the Chief of the Bureau of Animal Industry. The certificates shall be delivered to the chief officer of the vessel upon which said consignment of live stock is to be transported after the loading and stowing is completed, and continue with the shipment to destination, where it may be delivered to the consignee.

DEFECTIVE FITTINGS.

Regulation 56. The inspector may, in case he finds that any of the fittings are worn, decayed, defective in construction, or appear to be unsound, require the same to be replaced before he authorizes the clearance of the vessel.

CLEANSING OF FALSE DECKS AND TEMPORARY TROUGHS.

Regulation 57. False decks upon which cattle are loaded and temporary feed troughs must be removed and the manure and dirt cleaned from underneath before receiving another load of cattle.

HEADROPES, ETC.

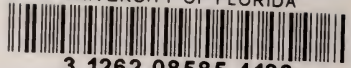
Regulation 58. Cattle shall be tied with $\frac{3}{4}$ -inch rope, which shall not be used more than once, and must be either manila or sisal.

All headropes, halters, blankets, stable utensils, feed bags, and feed troughs, if returned to this country, must be disinfected under the supervision of the inspector of the port unless an affidavit is furnished by the captain of the vessel that the same have been disinfected, describing the manner of disinfection, or unless such affidavit is furnished by the proper official at the port where the animals are unloaded.

INJURED ANIMALS.

Regulation 59. Animals suffering from broken limbs or other serious injuries during the voyage shall be slaughtered by direction of the captain of the vessel.

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